

Keynote Speaker, AIDS Day Commemoration, Austin, Texas, 2011
Consultation on Advancing HIV Incidence Surveillance, Centers for Disease Control and
Prevention, Atlanta, Georgia, 2011

International AIDS Society (IAS) Controversies in HIV Cure Research, Rome Italy, 2011
American Society for Microbiology Conference of Undergraduate Educators, Baltimore,
Maryland, 2011

Division of AIDS Prevention Sciences Program Potential Biomarkers for HIV Incidence Assay
Development, Bethesda, Maryland, 2011

IAS Pre-Conference Workshop: Towards a Cure: HIV Reservoirs and Strategies to Control
Them, Vienna, Austria, 2010

Mount Sinai School of Medicine Infectious Diseases Grand Rounds, New York, New York, 2010

National Institute of Infectious Disease, Tokyo, Japan, 2010

Nagoya University, Nagoya, Japan, 2010

SAIC Translational Research Seminar Series, Frederick, Maryland, 2010

17th Conference on Retroviruses and Opportunistic Infections, San Francisco, California, 2010

Keynote Speaker, Johns Hopkins Biotechnology, Center for Talented Youth, Rockville,
Maryland, 2010

Division of AIDS, NIAID, Bethesda, Maryland, 2010

Aaron Diamond AIDS Research Center, New York, New York, 2009

Center for Cancer Research Grand Rounds, Bethesda, Maryland, 2009

NIH Clinical Grand Rounds, Bethesda, Maryland, 2009

XVII International HIV Drug Resistance Workshop, Sanibel Island, Florida, 2009

Division of AIDS, NIAID, Bethesda, Maryland, 2009

Workshop on Eliminating Viral Persistence and Eradicating HIV Infection, Washington, D.C.,
2008

XVI International HIV Drug Resistance Workshop, Sitges, Spain, 2008

Grand Rounds, Washington Hospital Center, Washington, D.C., 2008

NIAID Grand Rounds, NIH, Bethesda, Maryland, 2007

Viral Genomics Workshop, Broad Institute, MIT/Harvard, Cambridge, Massachusetts, 2007

Cold Spring Harbor Laboratory Meeting on Retroviruses, Cold Spring Harbor, New York, 2007

13th Conference on Retroviruses and Opportunistic Infections, Denver, Colorado, 2007

17th Annual HIV Symposium, Nassau University Medical Center, East Meadow, New York, 2006

Pennsylvania/Mid-Atlantic AIDS Education and Training Center, Fairfax, Virginia, 2006

HIV Advanced Clinical Update AIDS Education and Training Center, Fairfax, Virginia, 2005-
2006

PACT Project Neighborhood Lecture Series, Washington, D.C., 2005

NCI-Frederick Lecture Series, Frederick, Maryland, 2005

XIV International HIV Drug Resistance Workshop, Quebec City, Canada, 2005

Cold Spring Harbor Laboratory Meeting on Retroviruses, Cold Spring Harbor, New York, 2005

NIAID Grand Rounds, Bethesda, Maryland, 2001-2005

XIII International HIV Drug Resistance Workshop, Tenerife, Spain, 2004

Cold Spring Harbor Laboratory Meeting on Retroviruses, Cold Spring Harbor, New York, 2004

DOD-TACC Joint Meeting, Bethesda, Maryland, 2004

NIH Demystifying Medicine Lecture Series, Bethesda, Maryland, 2004

XII International HIV Drug Resistance Workshop, Cabo St. Lucas, Mexico, 2004

10th International Workshop on HIV Dynamics and Evolution, Lake Arrowhead, California, 2003

Cold Spring Harbor Laboratory Meeting on Retroviruses, Cold Spring Harbor, New York, 2003

Washington Hospital Center Infectious Diseases Lecture Series, Washington, D.C., 2002

NIAID Laboratory of Immunoregulation Lecture Series, Bethesda, Maryland, 2002

NIAID Grand Rounds, Bethesda, Maryland, 2001-2002

NCI-Frederick Lecture Series, Frederick, Maryland, 2001

FRANK MALDARELLI, M.D., PH.D.

BIBLIOGRAPHY

Peer-Reviewed Research Publications:

1. Lau CY, Adan MA, **Maldarelli F**. Why the HIV Reservoir Never Runs Dry: Clonal Expansion and the Characteristics of HIV-Infected Cells Challenge Strategies to Cure and Control HIV Infection. *Viruses*. 2021 Dec 14;13(12):2512. doi: 10.3390/v13122512. PMID: 34960781
2. Coffin JM, Bale MJ, Wells D, Guo S, Luke B, Zerbato JM, Sobolewski MD, Sia T, Shao W, Wu X, **Maldarelli F**, Kearney MF, Mellors JW, Hughes SH. Integration in oncogenes plays only a minor role in determining the in vivo distribution of HIV integration sites before or during suppressive antiretroviral therapy. *PLoS Pathog*. 2021 Apr 7;17(4):e1009141. doi: 10.1371/journal.ppat.1009141. eCollection 2021 Apr. PMID: 33826675
3. Patro SC, Niyongabo A, **Maldarelli F**, Kearney MF. New Approaches to Multi-Parametric HIV-1 Genetics Using Multiple Displacement Amplification: Determining the What, How, and Where of the HIV-1 Reservoir Viruses. *Viruses*. 2021 Dec 10;13(12):2475. doi: 10.3390/v13122475. PMID: 34960744
4. Mitchell JL, Pollara J, Dietze K, Edwards RW, Nohara J, N'guessan KF, Zemil M, Buranapraditkun S, Takata H, Li Y, Muir R, Kroon E, Pinyakorn S, Jha S, Manasnayakorn S, Chottanapund S, Thantiworasit P, Prueksakaew P, Ratnaratorn N, Nuntapinit B, Fox L, Tovanabutra S, Paquin-Proulx D, Wieczorek L, Polonis VR, **Maldarelli F**, Haddad EK, Phanuphak P, Sacdalan CP, Rolland M, Phanuphak N, Ananworanich J, Vasan S, Ferrari G, Trautmann L; RV254 and RV304 Study Groups. Anti-HIV antibody development up to 1 year after antiretroviral therapy initiation in acute HIV infection. *J Clin Invest*. 2022 Jan 4;132(1):e150937. doi: 10.1172/JCI150937. PMID: 34762600
5. Boyer PL, Rehm CA, Sneller MC, Mican J, Caplan MR, Dewar R, Ferris AL, Clark P, Johnson A, **Maldarelli F**, Hughes SH. A Combination of Amino Acid Mutations Leads to Resistance to Multiple Nucleoside Analogs in Reverse Transcriptases from HIV-1 Subtypes B and C. *Antimicrob Agents Chemother*. 2021 Nov 1:AAC0150021. doi: 10.1128/AAC.01500-21. Online ahead of print. PMID: 34723625
6. Deeks SG, Archin N, Cannon P, Collins S, Jones RB, de Jong MAWP, Lambotte O, Lamplough R, Ndung'u T, Sugarman J, Tiemessen CT, Vandekerckhove L, Lewin SR; International AIDS Society (IAS) Global Scientific Strategy working group. Research priorities for an HIV cure: International AIDS Society Global Scientific Strategy 2021. *Nat Med*. 2021 Dec;27(12):2085-2098. doi: 10.1038/s41591-021-01590-5. Epub 2021 Dec 1. PMID: 34848888.
7. Gatechompol S, Zheng L, Bao Y, Avihingsanon A, Kerr SJ, Kumarasamy N, Hakim JG, **Maldarelli F**, Gorelick RJ, Welker JL, Lifson JD, Hosseinipour MC, Eron JJ,

- Ruxrungtham K. Prevalence and risk of residual viremia after ART in low- and middle-income countries: A cross-sectional study. *Medicine (Baltimore)*. 2021 Sep 3;100(35):e26817. doi: 10.1097/MD.0000000000026817. PMID: 34477118 Free PMC article.
8. Merati TP, Karyana M, Tjitra E, Kosasih H, Aman AT, Alisjahbana B, Lokida D, Arlinda D, Maldarelli F, Neal A, Arif M, Gasem MH, Lukman N, Sudarmono P, Lau CY, Hadi U, Lisdawati V, Wulan WN, Lane HC, Siddiqui S. Prevalence of HIV Infection and Resistance Mutations in Patients Hospitalized for Febrile Illness in Indonesia. *Am J Trop Med Hyg*. 2021 Aug 30;105(4):960-965. doi: 10.4269/ajtmh.20-1595. PMID: 34460416
 9. Boltz VF, Ceriani C, Rausch JW, Shao W, Bale MJ, Keele BF, Hoh R, Milush JM, Deeks SG, **Maldarelli F**, Kearney MF, Coffin JM. CpG Methylation Profiles of HIV-1 Pro-Viral DNA in Individuals on ART. *Viruses*. 2021 Apr 29;13(5):799. doi: 10.3390/v13050799. PMID: 33946976
 10. Kroon, E.D.M.B., J. Ananworanich, A. Pagliuzza, A. Rhodes, N. Phanuphak, L. Trautmann, J.L. Mitchell, M. Chantanaphol, J. Intasan, S. Pinyakorn, K. Benjapornpong, J.J. Chang, D.J. Colby, N. Chomchey, J.L.K. Fletcher, K. Eubanks, H. Yang, J. Kapson, A. Dantanarayana, S. Tennakoon, R.J. Gorelick, **F. Maldarelli**, M.L. Robb, J.H. Kim, S. Spudich, N. Chomont, P. Phanuphak, S.R. Lewin, M.S. de Souza, and SEARCH 019 and RV254 Study Teams. 2020. A randomized trial of vorinostat with treatment interruption after initiating antiretroviral therapy during acute HIV-1 infection. *J. Virus Erad*. 6:100004. PMCID: [PMC7646672](#).
 11. Shao, W., V.F. Boltz, J. Hattori, M.J. Bale, **F. Maldarelli**, J.M. Coffin, and M.F. Kearney. 2020. HIV-DRLink: A tool for reporting linked HIV-1 drug resistance mutations in large single-genome datasets using the Stanford HIV Database. *AIDS Res. Hum. Retroviruses* 36:942-947. PMID: [32683881](#).
 12. Elbezanti, W., A. Lin, A. Schirling, A. Jackson, M. Marshall, R. Van Duyne, **F. Maldarelli**, L. Sardo, and Z. Klase. 2020. Benzodiazepines drive alteration of chromatin at the integrated HIV-1 LTR. *Viruses* 12:E191. PMCID: [PMC7077212](#).
 13. Mitchell, J.L., H. Takata, R. Muir, D.J. Colby, E. Kroon, T.A. Crowell, C. Sacdalan, S. Pinyakorn, S. Pattamaswin, K. Benjapornpong, R. Trichavaroj, R.L. Tressler, L. Fox, V.R. Polonis, D.L. Bolton, **F. Maldarelli**, S.R. Lewin, E.K. Haddad, P. Phanuphak, M.L. Robb, N.L. Michael, M. de Souza, N. Phanuphak, J. Ananworanich, and L. Trautmann. 2020. Plasmacytoid dendritic cells sense HIV replication before detectable viremia following treatment interruption. *J. Clin. Invest.* Feb 4:130597. PMCID: [PMC7260031](#).
 14. Anderson, E.M., F.R. Simonetti, R.J. Gorelick, S. Hill, M.A. Gouzoulis, J. Bell, C. Rehm, L. Pérez, E. Boritz, X. Wu, D. Wells, S.H. Hughes, V. Rao, J.M. Coffin, M.F. Kearney, and **F. Maldarelli**. 2020. Dynamic shifts in the HIV proviral landscape during long term combination antiretroviral therapy: Implications for persistence and control of HIV infections. *Viruses* 12:E136. PMCID: [PMC7077288](#).
 15. Reid E.G., A. Suazo, S.Y. Lensing, D.P. Dittmer, R.F. Ambinder, **F. Maldarelli**, R.J. Gorelick, D. Aboulafia, R. Mitsuyasu, M.A. Dickson, W. Wachsman for the AIDS Malignancy Consortium. 2020. Pilot Trial AMC-063: Safety and efficacy of bortezomib in AIDS-associated Kaposi sarcoma. *Clin. Cancer Res.* 26:558-565. PMCID: [PMC7034393](#).

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17. Hataye, J.M., J.P. Casazza, K. Best, C.J. Liang, T. Immonen, D.R. Ambrozak, S. Darko, A.R. Henry, F. Laboune, **F. Maldarelli**, D.C. Douek, N.W. Hengartner, T. Yamamoto, B.F. Keele, A.S. Perelson, and R.A. Koup. 2019. Principles governing establishment versus collapse of HIV-1 cellular spread. *Cell Host Microbe* **26**:748-763.
18. Musick, A., J. Spindler, E. Boritz, L. Pérez, D. Crespo-Vélez, S.C. Patro, M.D. Sobolewski, M.J. Bale, C. Reid, B.F. Keele, A. Capoferri, W. Shao, A. Wiegand, F.R. Simonetti, J.W. Mellors, S.H. Hughes, J.M. Coffin, **F. Maldarelli**, and M.F. Kearney. 2019. HIV infected T cells can proliferate *in vivo* without inducing expression of the integrated provirus. *Front. Microbiol.* **10**:2204. PMCID: [PMC6781911](#).
19. Wonderlich, E.R., K. Subramanian, B. Cox, A. Wiegand, C. Lackman-Smith, M.J. Bale, M. Stone, R. Hoh, M.F. Kearney, **F. Maldarelli**, S. Deeks, M.P. Busch, R.G. Ptak, and D.A. Kulpa. 2019. Effector memory differentiation increases detection of replication-competent HIV-1 in resting CD4+ T cells from virally suppressed individuals. *PLOS Pathog.* **15**: e1008074. PMCID: [PMC6812841](#).
20. Bozzi, G., F.R. Simonetti, S.A. Watters, E.M. Anderson, M. Gouzoulis, M.F. Kearney, P. Rote, C. Lange, W. Shao, R. Gorelick, B. Fullmer, S. Kumar, S. Wank, S. Hewitt, D.E. Kleiner, J. Hattori, M.J. Bale, S. Hill, J. Bell, C. Rehm, Z. Grossman, R. Yarchoan, T. Uldrick, and **F. Maldarelli**. 2019. No evidence of ongoing HIV-1 replication in tissue compartments during cART. *Sci. Adv.* **5**:eaav2045. PMCID: [PMC6760922](#).
21. Grossman, Z., B. Avidor, S. Girshengoren, E. Katchman, **F. Maldarelli**, and D. Turner. 2019. Transmission dynamics of HIV subtype A in Tel Aviv, Israel: Implications for HIV spread and eradication. *Open Forum Infect. Dis.* **6**:ofz304. PMCID: [PMC6657966](#).
22. Winchester, N.E., **F. Maldarelli**, Y. Mejia, N. Dee, R. Dewar, E. Laidlaw, S.S. Kuriakose, P. Stoll, M. Proschak, H.C. Lane, and A.K. Pau. 2019. 8-Day inpatient directly observed therapy for ART failure: A tool for preventing unnecessary ART changes and optimizing adherence support. *Clin. Infect. Dis.* **Jul 11**:ciz590. PMCID: [PMC7319057](#).
23. Coffin, J.M., D.W. Wells, J.M. Zerbato, J.D. Kuruc, S. Guo, B.T. Luke, J.J. Eron, M. Bale, J. Spindler, F.R. Simonetti, S. Hill, M.F. Kearney, **F. Maldarelli**, X. Wu, J.W. Mellors, and S.H. Hughes. 2019. Clones of infected cells arise early in HIV-infected individuals. *JCI Insight* **4**:128432. PMCID: [PMC6629130](#).
24. Gibson, K.M., M.C. Steiner, S. Kassaye, **F. Maldarelli**, Z. Grossman, M. Perez-Losada, and K.A. Crandall. 2019. A 28-year history of HIV-1 drug resistance and transmission in Washington, DC. *Front. Microbiol.* **10**:369. PMCID: [PMC6418020](#).
25. Fennessey, C.M., C. Camus, T.T. Immonen, C. Reid, **F. Maldarelli**, J.D. Lifson, and B.F. Keele. 2019. Low-level alternative tRNA priming of reverse transcription of HIV-1 and SIV *in vivo*. *Retrovirology* **16**:11. PMCID: [PMC6450007](#).
26. Reid, E.G., D. Looney, **F. Maldarelli**, A. Noy, D. Henry, D. Aboulafia, J.C. Ramos, J. Sparano, R.F. Ambinder, J. Lee, E. Cesarman, S. Yahyaei, R. Mitsuyasu, and W. Wachsman. 2018. Safety and efficacy of an oncolytic viral strategy using bortezomib with ICE/R in relapsed/refractory HIV-positive lymphomas. *Blood Adv.* **2**:3618-3626. PMCID: [PMC6306883](#).

27. Pastrana, D.V., A. Peretti, N.L. Welch, C. Borgogna, C. Olivero, R. Badolato, L.D. Notarangelo, M. Gariglio, P.C. FitzGerald, C.E. McIntosh, J. Reeves, G.J. Starrett, V. Bliskovsky, D. Velez, I. Brownell, R. Yarchoan, K.M. Wyvill, T.S. Uldrick, **F. Maldarelli**, A. Lisco, I. Sereti, C.M. Gonzalez, E.J. Androphy, A.A. McBride, K. Van Doorslaer, F. Garcia, I. Dvoretzky, J.S. Liu, J. Han, P.M. Murphy, D.H. McDermott, and C.B. Buck. 2018. Metagenomic discovery of 83 new human papillomavirus types in patients with immunodeficiency. *mSphere* **3**:e00645-18. PMCID: [PMC6291628](#).
28. Grossman, Z., S.V. Rico, K. Cone, W. Shao, C. Rehm, S. Jones, G. Bozzi, S. Dean, R. Dewar, T. Rehman, J. Purdy, C. Hadigan, A.K. Pau, and **F. Maldarelli**. 2018. Early presence of HIV-1 subtype C in Washington, D.C. *AIDS Res. Hum. Retroviruses* **34**:680-684. PMCID: [PMC6080110](#).
29. George, J.M., S.S. Kuriakose, N. Dee, P. Stoll, T. Lalani, R. Dewar, M.A. Khan, M.T. Rehman, Z. Grossman, **F. Maldarelli**, and A.K. Pau. 2018. Rapid development of high-level resistance to dolutegravir with emergence of T97A mutation in 2 treatment-experienced individuals with baseline partial sensitivity to dolutegravir. *Open Forum Infect. Dis.* **5**:ofy221. PMCID: [PMC6172925](#).
30. Anderson, E.M., and **F. Maldarelli**. 2018. Quantification of HIV DNA using droplet digital PCR techniques. *Curr. Protoc. Microbiol.* **51**:e62. PMCID: [PMC6209535](#).
31. Anderson, E.M., and **F. Maldarelli**. 2018. The role of integration and clonal expansion in HIV infection: Live long and prosper. *Retrovirology* **15**:71. PMCID: [PMC6199739](#).
32. Colby, D.J., L. Trautmann, S. Pinyakorn, L. Leyre, A. Pagliuzza, E. Kroon, M. Rolland, H. Takata, S. Buranapraditkun, J. Intasan, N. Chomchey, R. Muir, E.K. Haddad, S. Tovanabutra, S. Ubolyam, D.L. Bolton, B.A. Fullmer, R.J. Gorelick, L. Fox, T.A. Crowell, R. Trichavaroj, R. O'Connell, N. Chomont, J.H. Kim, N.L. Michael, M.L. Robb, N. Phanuphak, J. Ananworanich, and **RV411 Study Group**. 2018. Rapid HIV RNA rebound after antiretroviral treatment interruption in persons durably suppressed in Fiebig I acute HIV infection. *Nat. Med.* **24**:923-926. PMCID: [PMC6092240](#).
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37. Simonetti, F.R., M.D. Sobolewski, E. Fyne, W. Shao, J. Spindler, J. Hattori, E.M. Anderson, S.A. Watters, S. Hill, X. Wu, D. Wells, L. Su, B.T. Luke, E.K. Halvas, G. Besson, K.J. Penrose, Z. Yang, R.W. Kwan, C. Van Waes, T. Uldrick, D.E. Citrin, J. Kovacs, M.A. Polis, C.A. Rehm, R. Gorelick, M. Piatak, B.F. Keele, M.F. Kearney, J.M. Coffin, S.H. Hughes, J.W. Mellors, and **F. Maldarelli**. 2016. Clonally expanded CD4+ T cells can produce infectious HIV-1 in vivo. *Proc. Natl. Acad. Sci. USA* **113**:1883-1888. PMCID: [PMC4763755](#).
38. Shao, W., J. Shan, M.F. Kearney, X. Wu, **F. Maldarelli**, J.W. Mellors, B. Luke, J.M. Coffin, and S.H. Hughes. 2016. Retrovirus Integration Database (RID): A public database for retroviral insertion sites into host genomes. *Retrovirology* **13**:47. PMCID: [PMC4932684](#).
39. Polizzotto, M.N., T.S. Uldrick, K.M. Wyvill, K. Aleman, C.J. Peer, M. Bevans, I. Sereti, **F. Maldarelli**, D. Whitby, V. Marshall, P.H. Goncalves, V. Khetani, W.D. Figg, S.M. Steinberg, J.B. Zeldis, and R. Yarchoan. 2016. Pomalidomide for symptomatic Kaposi's sarcoma in people with and without HIV infection: A phase I/II study. *J. Clin. Oncol.* **34**:4125-4131. PMCID: [PMC5477825](#).
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41. Kassaye, S.G., Z. Grossman, M. Balamane, B. Johnston-White, C. Liu, P. Kumar, M. Young, M.C. Sneller, I. Sereti, R. Dewar, C. Rehm, W. Meyer, 3rd, R. Shafer, D. Katzenstein, and **F. Maldarelli**. 2016. Transmitted HIV drug resistance is high and long-standing in metropolitan Washington, DC. *Clin. Infect. Dis.* **63**:836-843. PMCID: [PMC4996138](#).
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46. Simonetti, F.R., M.D. Sobolewski, E. Fyne, W. Shao, J. Spindler, J. Hattori, E.M. Anderson, S.A. Watters, S. Hill, X. Wu, D. Wells, L. Su, B.T. Luke, E.K. Halvas, G. Besson, K.J. Penrose, Z. Yang, R.W. Kwan, C. Van Waes, T. Uldrick, D. Citrin, J. Kovacs, M.A. Polis, C.A. Rehm, R. Gorelick, M. Piatak, B.F. Keele, M.F. Kearney, J.M. Coffin, S.H. Hughes, J.W. Mellors, and **F. Maldarelli**. 2016. Clonally expanded CD4⁺ T cells can produce infectious HIV-1 in vivo. *Proc. Natl. Acad. Sci. USA* **113**:1883-1888. PMCID: [PMC4763755](#).
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Invited Book Chapters, Reviews, and Commentaries:

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